

CLAIMS:

1. A device for generating ultraviolet radiation by means of an excimer discharge, which device is equipped with an at least partly UV-transparent discharge vessel whose discharge space is filled with a gas filling, with means for triggering and maintaining an excimer discharge in the discharge space, and with a coating that contains a phosphor comprising a host lattice and neodymium(III) as an activator.
2. A device for generating ultraviolet radiation as claimed in claim 1, characterized in that the phosphor contains praseodymium(III) as a co-activator.
3. A device for generating ultraviolet radiation as claimed in claim 1, characterized in that the phosphor is selected from the group $(La_{1-x}Y_x)PO_4:Nd$ where $0 \leq x \leq 1$, $(La_{1-x}Y_x)PO_4:Nd,Pr$ where $0 \leq x \leq 1$, $SrAl_{12}O_{19}:Nd$, $LaB_3O_6:Nd$, $LaMgB_5O_{10}:Nd$, $SrAl_{12}O_{19}:Nd,Pr$, $LaBO_3O_6:Nd,Pr$, $LaMgB_5O_{10}:Nd,Pr$ and $GdPO_4:Nd$,
4. A device for generating ultraviolet radiation as claimed in claim 1, characterized in that the phosphor comprises a coating that contains an oxide selected from the group MgO , SiO_2 and Al_2O_3 .
5. A device for generating ultraviolet radiation as claimed in claim 1, characterized in that the gas filling contains a gas selected from the group xenon, krypton, argon, neon and helium.
6. A device for generating ultraviolet radiation as claimed in claim 1, characterized in that the gas filling contains xenon.
7. A device for generating ultraviolet radiation as claimed in claim 1, characterized in that the electrodes are composed of a metal or alloy that reflects UV-C light.

8. A device for generating ultraviolet radiation as claimed in claim 1, characterized in that part of the discharge vessel is provided with a coating that acts as a reflector of VUV and/or UV-C light.

5 9. Use of the device claimed in claim 1 for photolytic processes.